इंटरनेट मानक

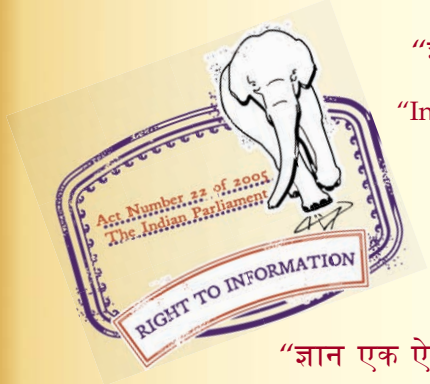
Disclosure to Promote the Right To Information

Whereas the Parliament of India has set out to provide a practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, and whereas the attached publication of the Bureau of Indian Standards is of particular interest to the public, particularly disadvantaged communities and those engaged in the pursuit of education and knowledge, the attached public safety standard is made available to promote the timely dissemination of this information in an accurate manner to the public.

"जानने का अधिकार, जीने का अधिकार"
Mazdoor Kisan Shakti Sangathan
"The Right to Information, The Right to Live"

"पुराने को छोड नये के तरफ"
Jawaharlal Nehru
"Step Out From the Old to the New"

IS 5122 (1969): Tyre Levers [PGD 5: Assembly Hand Tools]



"ज्ञान से एक नये भारत का निर्माण"
Satyanarayan Gangaram Pitroda
"Invent a New India Using Knowledge"

"ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है"
Bhartṛhari—Nītiśatakam
"Knowledge is such a treasure which cannot be stolen"

BLANK PAGE

IS : 5122 - 1969
(Reaffirmed 2004)

Indian Standard

SPECIFICATION FOR TYRE LEVERS

UDC 621·866·12 : 629·113

INDIAN STANDARDS INSTITUTION
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 1

July 1969

Indian Standard

SPECIFICATION FOR TYRE LEVERS

Hand Tools Sectional Committee, EDC 12

Chairman	*Representing*
SHRI S. K. KEMPAIAH	The Mysore Implements Factory, Hassan
Members	
SHRI N. S. VENKATESHA (*Alternate* to Shri S. K. Kempaiah)	
SHRI V. K. BHALLA	Usha Forgings & Stampings Limited, New Delhi
SHRI MOHINDER DEWAN (*Alternate*)	
DIRECTOR OF FLEET MAINTENANCE	Indian Navy
SHRI B. D. GAUR	Railway Board (Ministry of Railways)
SHRI R. T. S. RANGIAH (*Alternate*)	
LT COL J. C. JOSHI	Department of Defence Production, Ministry of Defence (DGI)
SHRI M. R. S. SOORMA (*Alternate*)	
SHRI C. N. KAPOOR	Railway Board (Ministry of Railways)
SHRI D. MAJUMDAR	Development Commissioner, Small Scale Industries (Ministry of Industrial Development & Company Affairs)
SHRI G. B. JAKHETIA (*Alternate*)	
SHRI S. D. MAJUMDAR	National Test House, Calcutta
SHRI T. H. NIRMAL	Ministry of Food & Agriculture, New Delhi
SHRI GOBINDO PROSAD PAUL	Gobindo Sheet Metal Works & Foundry, Calcutta
SHRI E. K. RAMAKRISHNAN	Kumar Industries, Parli (S. Malabar)
SHRI K. N. P. RAO	The Tata Iron & Steel Co Ltd, Jamshedpur
SHRI U. V. KINI (*Alternate*)	
SHRI SATISH CHANDRA	Directorate General of Technical Development (Ministry of Industrial Development & Company Affairs)
SHRI R. P. SOOD	Director of Industries, Government of Haryana
SHRI S. S. TAPARIA	Bahco Taparia Tools Ltd, Nasik
SHRI NILS JAESCHKE (*Alternate*)	
SHRI T. C. THADANI	Engineer-in-Chief's Branch (Army Headquarters)
SHRI S. N. VOHRA	Directorate General of Supplies & Disposals, New Delhi
SHRI M. B. PRABHU (*Alternate*)	
SHRI M. V. PATANKAR, Director (Mech Engg)	Director General, ISI (*Ex-officio Member*)

Secretary

SHRI B. L. RAINA

Assistant Director (Mech Engg), ISI

INDIAN STANDARDS INSTITUTION
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 1

Indian Standard
SPECIFICATION FOR TYRE LEVERS

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 30 April 1969, after the draft finalized by the Hand Tools Sectional Committee had been approved by the Mechanical Engineering Division Council.

0.2 This standard specifies the requirements for nine types of tyre levers employed for removing and fitting of tyres for automobiles.

0.3 While preparing this standard, assistance has been derived from the information supplied by Chief Inspectorate of Vehicles, Ministry of Defence (DGI), Government of India.

0.4 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

---

1. SCOPE

1.1 This standard lays down the requirements for nine types of tyre levers.

2. MATERIAL

2.1 The tyre levers shall be manufactured from good quality suitable steel, such as T55 or T60 of schedule VI of IS : 1570-1961† with maximum phosphorus and sulphur content 0·05 percent each.

3. HARDNESS

3.1 The tyre lever shall be hardened and tempered over the entire length of the end formation and beyond as well, over the main shank portion of about 50 mm on all working ends. The hardness value shall be within the range of 320 to 370 *HV* 10 (*see* IS : 1501-1959‡).

*Rules for rounding off numerical values (*revised*).

†Schedules for wrought steels for general engineering purposes.

‡Method for Vickers hardness test for steel.

3.1.1 For the determination of hardness, a hardness tester of any recognized form may be used.

4. DIMENSIONS

4.1 The dimensions of tyre levers shall be as given in Fig. 1 to 9.

4.1.1 The radii as indicated in Fig. 1 to 9 are approximate and for guidance only.

4.2 The permissible tolerances, or untoleranced dimensions shall be in accordance with IS : 3469-1966*.

5. MANUFACTURE AND FINISH

5.1 The tyre levers shall be forged clean and in one piece. They shall be well shaped and free from flaws, seams and other defects.

5.2 Working ends shall be ground to a reasonably smooth surface and shall be hardened and tempered.

6. PRESERVATIVE TREATMENT

6.1 The tyre levers shall be varnished all over and coated with an approved anti-corrosive paint.

7. MARKING

7.1 Each tyre lever shall be clearly and legibly stamped with the manufacturer's name, initial and/or recognized trade-mark and the type. The year of manufacture, if required by the purchaser, may also be stamped.

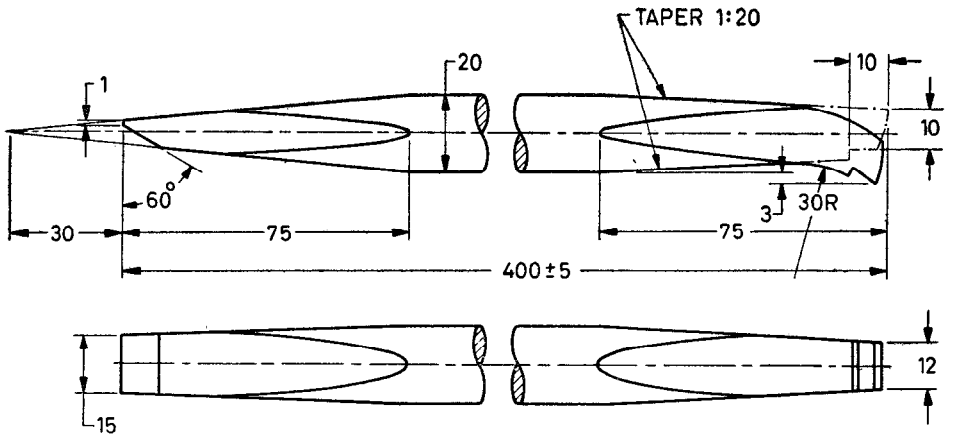
7.1.1 The tyre levers shall also be marked with the ISI Certification Mark.

NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act, and the Rules and Regulations made thereunder. Presence of this mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard, under a well-defined system of inspection, testing and quality control during production. This system, which is devised and supervised by ISI and operated by the producer, has the further safeguard that the products as actually marketed are continuously checked by ISI for conformity to the standard. Details of conditions, under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

8. PACKING

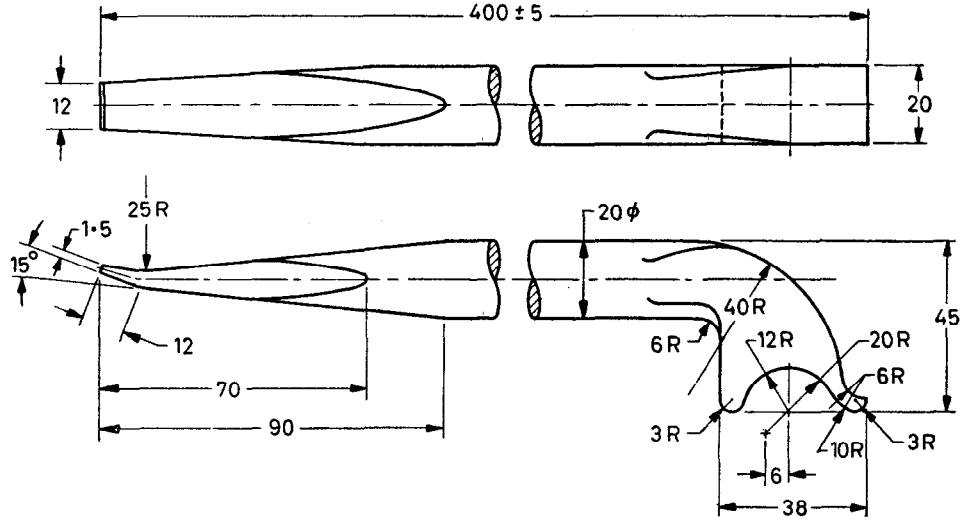
8.1 The tyre levers shall be securely packed in suitable packing boxes of a size convenient for handling in transit or bundled or secured suitably with wire, or as may be specified by the purchaser. Each type of tyre levers shall be kept separate when packed and no package shall contain more than one variety of tyre levers.

*Tolerances for steel drop forgings, upset forgings, press forgings and forged bars.



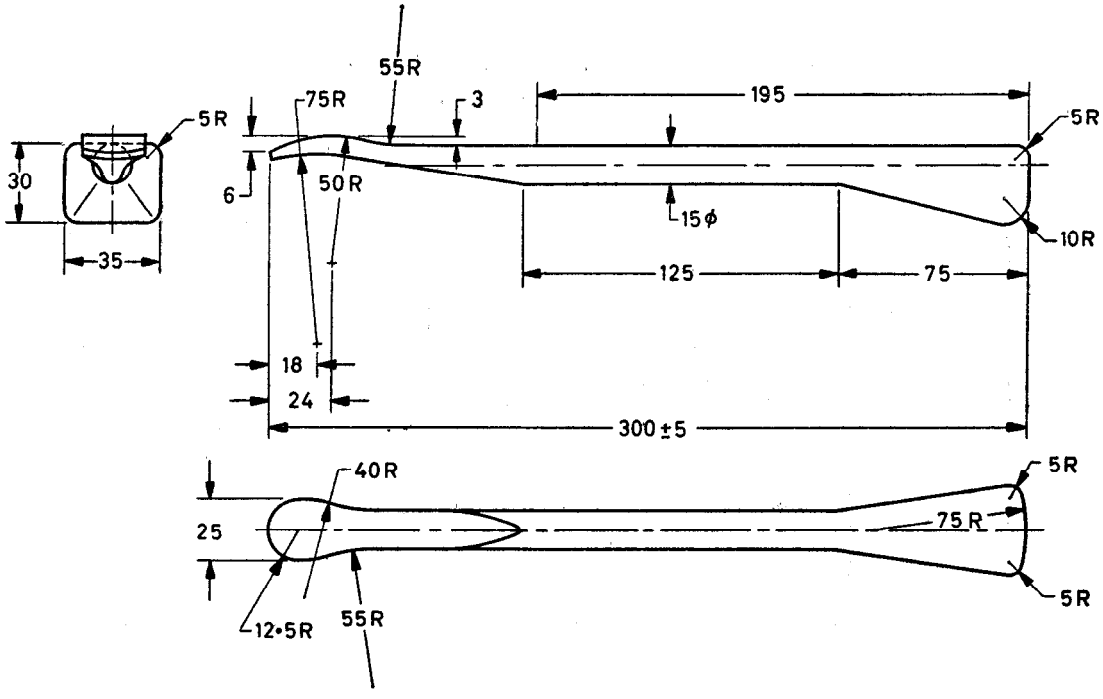
All dimensions in millimetres.

FIG. 1 DIMENSIONS FOR TYRE LEVERS, TYPE A



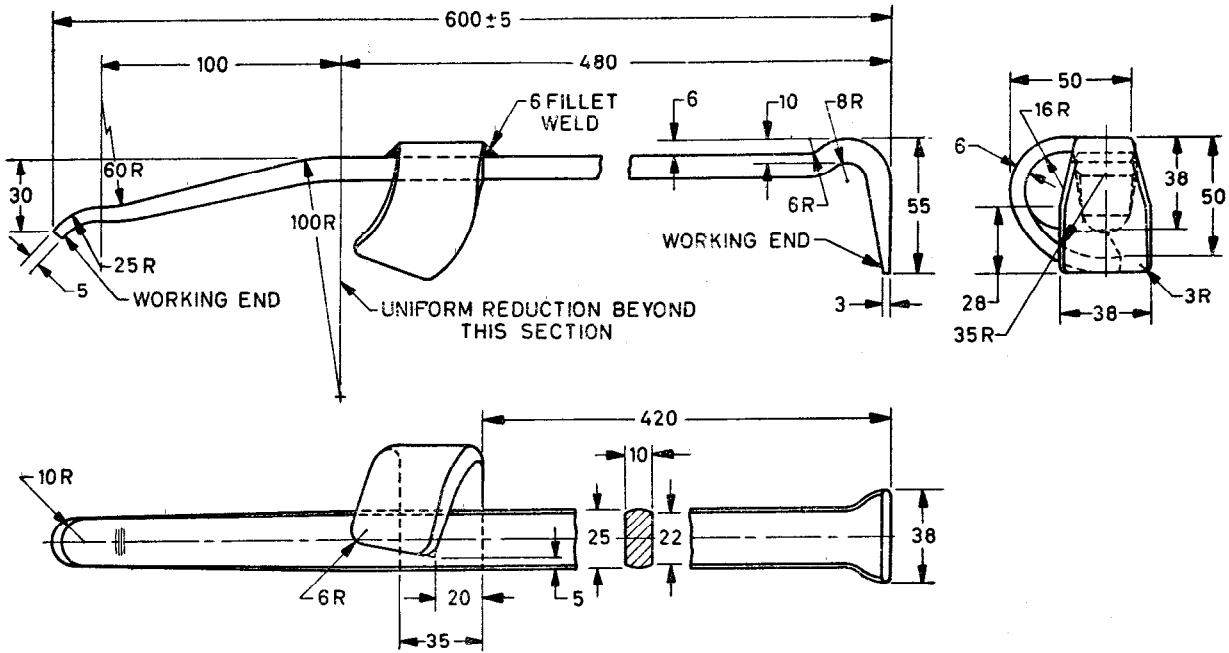
All dimensions in millimetres.

FIG. 2 DIMENSIONS FOR TYRE LEVERS, TYPE B



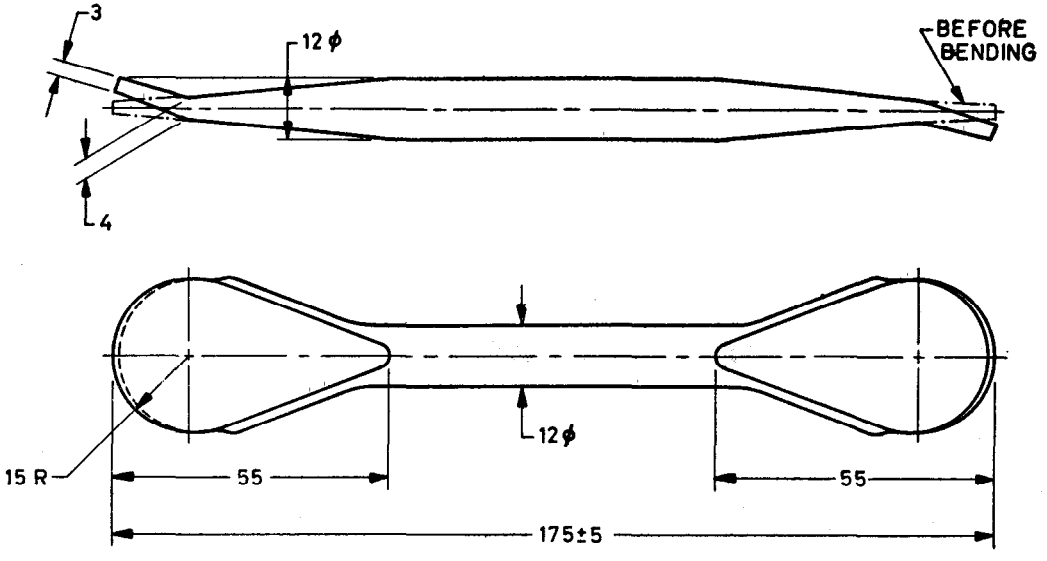
All dimensions in millimetres.

FIG. 3 DIMENSIONS FOR TYRE LEVERS, TYPE C



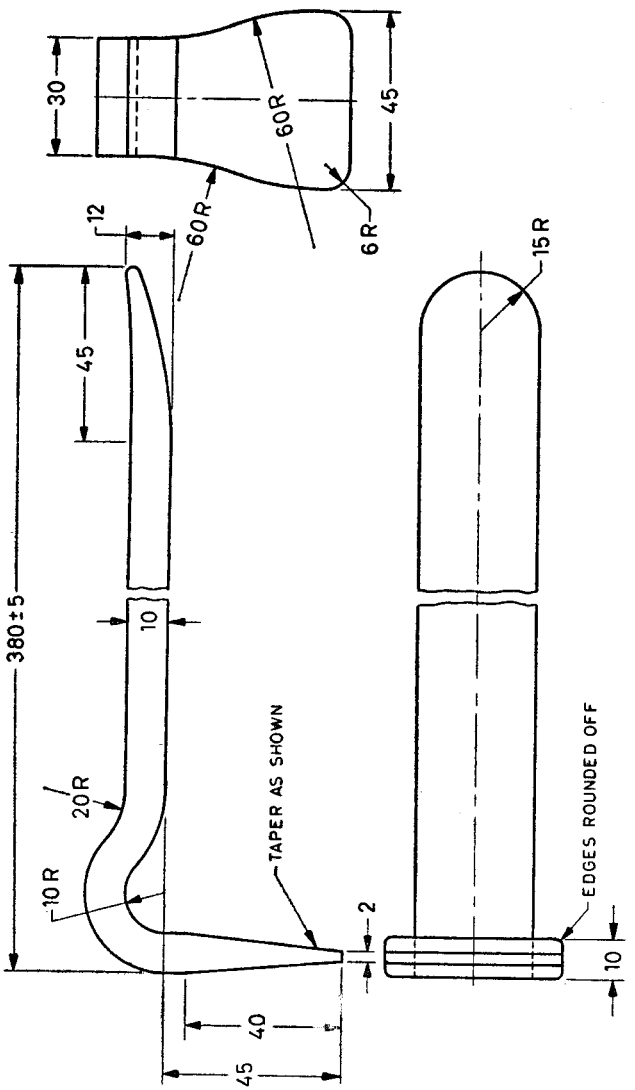
All dimensions in millimetres.

FIG. 4 DIMENSIONS FOR TYRE LEVERS, TYPE D



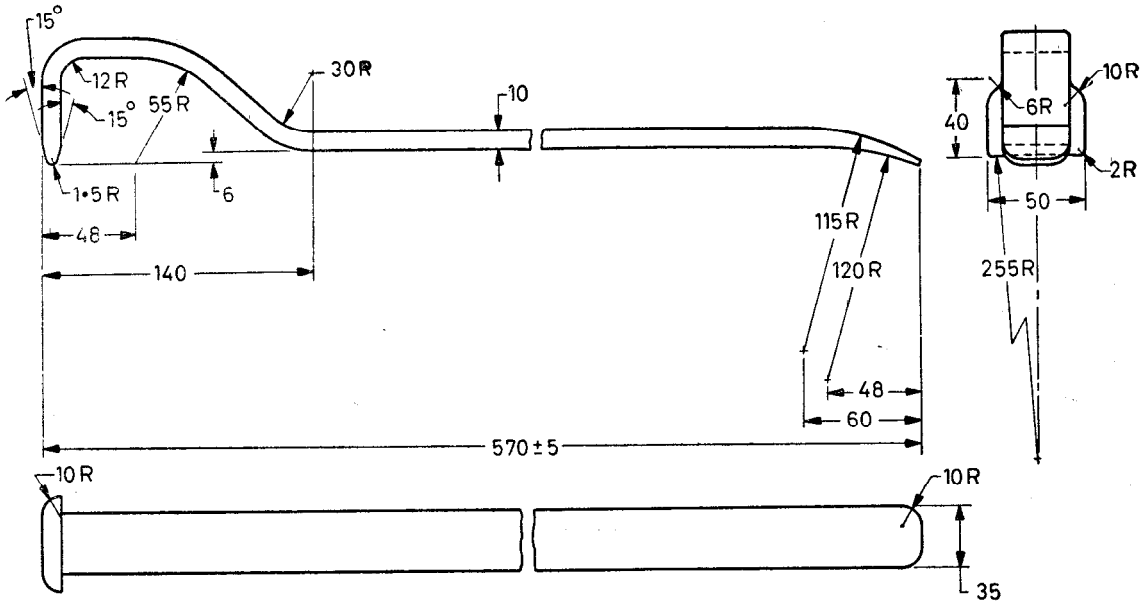
All dimensions in millimetres.

FIG. 5 DIMENSIONS FOR TYRE LEVERS, TYPE E



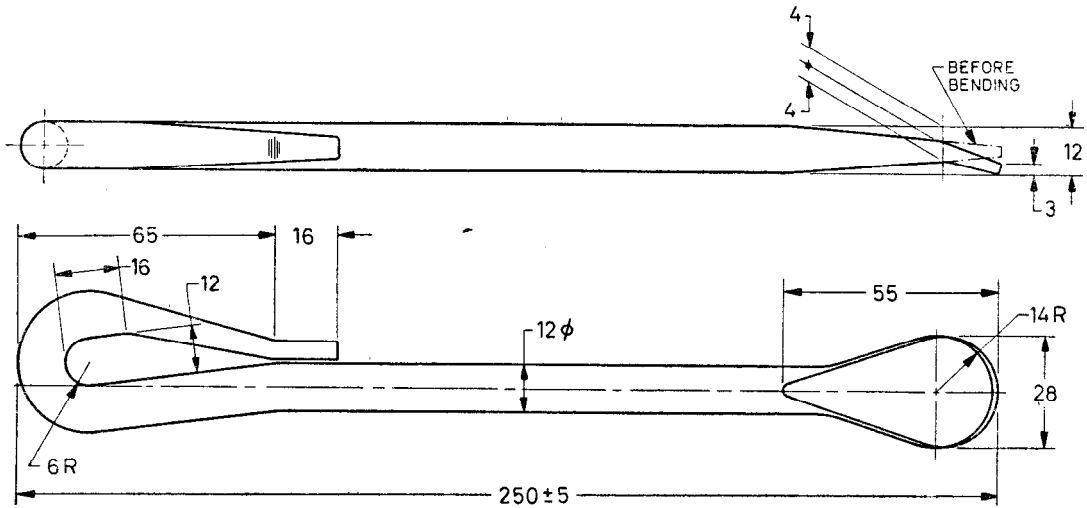
All dimensions in millimetres

FIG. 6 DIMENSIONS FOR TYRE LEVERS, TYPE F



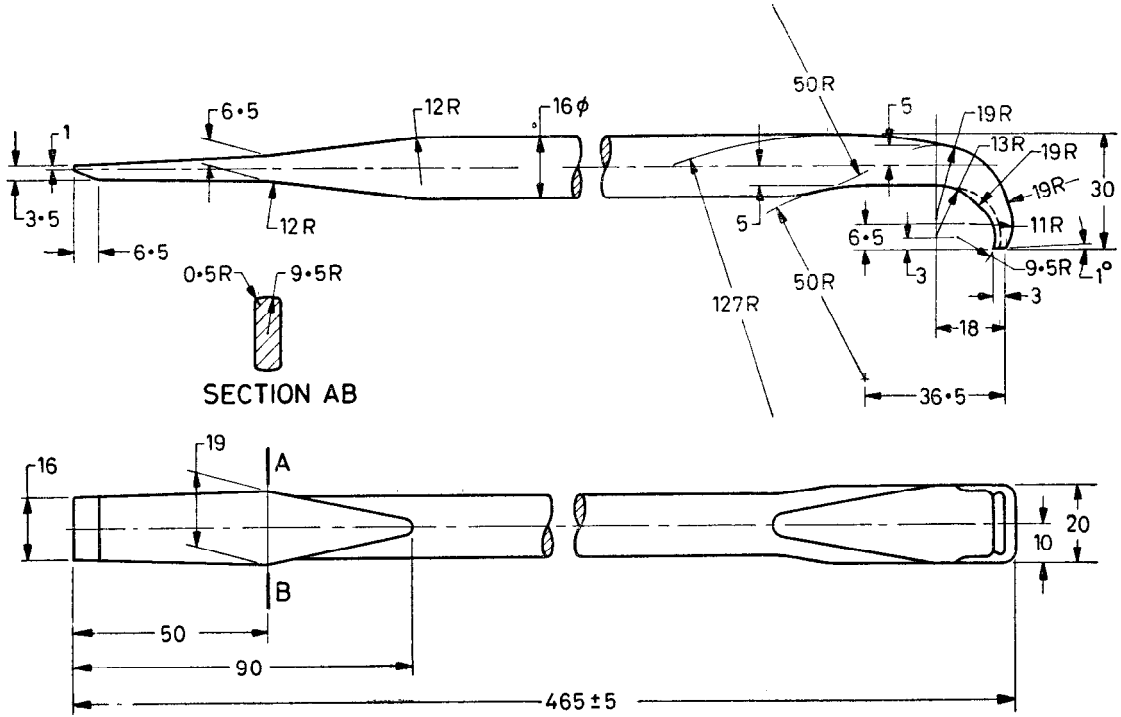
All dimensions in millimetres.

FIG. 7 DIMENSIONS FOR TYRE LEVERS, TYPE G



All dimensions in millimetres.

FIG. 8 DIMENSIONS FOR TYRE LEVERS, TYPE H



All dimensions in millimetres.

FIG. 9 DIMENSIONS FOR TYRE LEVERS, TYPE J

9. SAMPLING

9.1 Unless otherwise agreed to between the purchaser and the supplier, the scale of sampling and criteria for conformity given in Appendix A shall be followed.

APPENDIX A

(*Clause* 9.1)

SCALE OF SAMPLING AND CRITERIA FOR CONFORMITY

A-1. SCALE OF SAMPLING

A-1.1 Lot — In any consignment all the tyre levers of the same type manufactured from the same raw material shall constitute a lot.

A-1.2 For ascertaining the conformity of the lot to the requirements of this specification tests shall be carried out for each lot separately. The number of tyre levers to be selected at random for this purpose shall be in accordance with col 1 and 2 of Table 1. To ensure the randomness of selection, IS : 4905-1968* may be used.

TABLE 1 SCALE OF SAMPLING AND PERMISSIBLE NUMBER OF DEFECTIVES

Lot Size	Sample Size	Permissible No. of Defectives
(1)	(2)	(3)
Up to 25	3	0
26 „ 100	5	0
101 „ 150	8	0
151 „ 300	13	1
301 „ 500	20	1
501 and above	32	2

A-2. NUMBER OF TESTS AND CRITERIA FOR CONFORMITY

A-2.1 The tyre levers selected according to **A-1.2** shall be examined for hardness (*see* **3**), dimensions (*see* **4**) and manufacture and finish (*see* **5**). Any tyre lever failing to meet the requirements for any one or more of the characteristics shall be considered defective.

A-2.1.1 The lot shall be considered in conformity with the requirements of this specification if the number of tyre levers found defective is less than or equal to the corresponding number given in col 3 of Table 1.

*Methods for random sampling.

INDIAN STANDARDS

ON

Hand Tools

IS:		Rs
273-1961	Picks and beaters (*revised*)	3·00
274 (Parts I & II)-1966	Shovels (*second revision*)	3·50
402-1964	Chisels (*revised*)	4·00
413-1965	Punches round (*revised*)	1·50
510-1964	Blacksmith's anvils (cast steels) (*revised*)	2·50
552-1965	Smith bits (*revised*)	2·00
663-1964	Adzes (*revised*)	2.00
703-1966	Axes (*revised*)	2·50
704-1968	Crow bars and claw bars (*first revision*)	4·00
841-1968	Hand hammers (*first revision*)	6·50
842-1968	Smith's swages (*first revision*)	5·00
843-1968	Smith's tongs (*first revision*)	5·00
844-1962	Screw drivers	5·50
845-1961	Swage blocks and stands	2·00
846-1968	Smith's flatters (*first revision*)	3·50
847-1968	Smith's fullers (*first revision*)	4·00
1759-1961	*Powrahs*	4·50
1930-1961	Wood working chisels and gouges	3·00
1931-1962	Engineers' files	7·00
2027-1967	Width across flats for spanners (*first revision*)	2·00
2028-1968	Open jaw spanners (*first revision*)	5·00
2029-1962	Ring spanners	2·00
2030-1962	Box spanners	2·00
2586-1964	Bench vices (machinists vices)	4·00
2587-1964	Pipe vices (open side type and fixed side type)	2·00
2588-1964	Blacksmiths' vices	2·00
2615-1964	General requirements for pliers, pincers and nippers	4·50
2852-1964	Carpenters' augers	2·00
2989-1965	Keys for lathe chucks	2·00
3082-1965	Hexagonal keys for socket head screws	1·50
3152-1965	Needle files	2·00
3529-1966	Eyelet pliers	1·00
3552-1966	Flat nose plies	1·50
3568-1966	Round nose pliers	1·50
3569-1966	Burner pliers	1·00
3587-1966	Rasps	3·50
3650-1966	Combination side cutting pliers	1·00
4003-1967	Pipe wrenches	4·00
4017-1967	Carpenters' squares	2·50
4057-1967	Carpenters' metal bodies bench planes	5·00
4095-1967	Carpenters' pincers	2·00
4123-1967	Chain pipe wrenches	3·50
4378-1967	Nippers	2·50
4481-1968	Duckbill pliers	2·00
4485-1968	Track spanners for railways	2·50
4500-1967	Pipe wrenches, foot print type	4·00
4506-1968	Ballast forks	3·50
4508-1968	Shortened single ended open jaw spanners	3·50
4509-1968	Shortened single ended ring spanners	3·50
4806-1968	Heat coil pliers	2·00
4915-1968	Welders' chipping hammer	2·00

PUBLICATIONS OF INDIAN STANDARDS INSTITUTION

INDIAN STANDARDS

Over 5 000 Indian Standards, broadly classified under the following main heads, have been issued so far:

Agriculture & Food
Chemical
Civil Engineering
Consumer Products
Electrotechnical
Mechanical Engineering
Structural & Metals
Textile

Of these, the standards belonging to the Mechanical Engineering Group fall under the following categories:

Basic Engineering Standards
Abrasives
Bearings
Bicycle Components
Chemical Engineering
Engineering Metrology
Gas Cylinders and Fittings
Gaskets and Packings
Gears
Hand Tools
IC Engines and Automotive Vehicles
Instruments (Drawing, Optical and Surveying)
Machine Tools and Small Tools
Marine Engineering and Shipbuilding
Material Handling, Lifting Gear
Mining
Pumps
Refrigeration and Air-Conditioning
Sewing Machines
Steam Tables
Threaded Fasteners and Rivets
Transmission Devices, Pulleys and Belts
Weights and Measures
Wire Ropes and Wire Products
Unclassified

OTHER PUBLICATIONS

	Rs
ISI Bulletin (Published Every Month)	
Single Copy	3·00
Annual Subscription	25·00
Annual Reports (from 1948-49 Onwards)	2·00 to 3·00 each
Handbook of ISI Publications, 1969	10·00

Available from

INDIAN STANDARDS INSTITUTION

Headquarters

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 1

Telephones 27 36 11 - 20 **Telegrams Manaksanstha**

Branch Offices

Telegrams Manaksanstha

534 Sardar Vallabhbhai Patel Road	**Bombay 7**	**Telephone 35 69 44**
5 Chowringhee Approach	**Calcutta 13**	**,, 23-18 23**
5-9-201/2 Chirag Ali Lane	**Hyderabad 1**	**,, 3 23 35**
117/418 B Sarvodaya Nagar	**Kanpur 5**	**,, 6 76 95**
54 General Patters Road	**Madras 2**	**,, 8 72 78**

Printed at Neelkamal Printers, Delhi 6, India